

piece of white paper. The angle of divergence will be determined by the size of the object to be measured. The image of the object to be measured is projected on the sheet of paper. The paper is moved until the object just fills the space between the lines, and a mark is made across the lines at this point.

A stage micrometer scale is then substituted for the object and is moved along the diverging lines until a number of the divisions exactly cover the space between the lines. This point is marked as before by a cross line. The distance from the intersection of the lines to each of the cross lines is measured, and one has two similar triangles from which a single proportion can be derived in which the size of the object is the one unknown quantity—diameter of object: micrometer divisions:: distance from intersection to object: distance from intersection to micrometer.

MICRO-RADIOGRAPHY

Goby (Comp. Rend. CLVI, pp. 686-8: Trans. in J. R. M. S., Aug., 1913) reports the application of the X-ray to making visible the internal structure of opaque microscopic objects. "It replaces the method of section cutting, which is often slow and costly, and always indirect and destructive of the object, by a method which, whilst rapid and preserving the object itself, reveals sufficient detail to make it only necessary to enlarge the minute radiogram directly obtained, in order to be able to study it with the naked eye with the same facility as an ordinary macro-radiogram."

The difficulty of doing this has arisen in getting the necessary clearness of detail by means of Röntgen rays. This is overcome by an ingenious contrivance which suppresses the secondary or superfluous rays, and insures that the incident rays shall be normal. For details of the apparatus the reader must refer to the citations above. Figures are given which are enlarged ($\times 19-25$) reproductions of micro-radiograms of Foraminifera and of the limbs of a small three-toed lizard. The results are remarkable.

CIRCULATION BY CONVECTION CURRENTS IN LABORATORY AQUARIA

Gemmill (J. R. M. S., June, 1913) describes a simple method for getting a gentle circulation and aëration in single or serial small